respectfully requested.

Claims 9-12 and 13 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. The Examiner states that the recitation "formed by a thermal oxidation" makes claim 9 indefinite because it is a method limitation that fails to further limit the apparatus claim that claim 9 depends from. In regard to claims 12 and 13, the Examiner asserts that the recitation of "is removed" makes claim 12 indefinite, and the recitation of "is formed by one of a PECVD operation of LPCVD operation and another CVD operation" makes claim 13 indefinite. As stated above in regard to claim 9, the Examiner contends that the foregoing recitations of claims 12 and 13 are method limitations that fail to further limit the apparatus claim that claims 12 and 13 each respectively depend from.

The operative standard for determining whether the standard of §112, second paragraph, has been met is whether those skilled in the art would understand what is claimed when the claim is read in light of the specification. Beach Combers Int'l, Inc. v. Willdewood Creative Prods., Inc. 31 U.S.P.Q.2d 1653, 1656 (Fed. Cir. 1994).

Applicants respectfully submit that claims 9-12 and 13 clearly apprise those of ordinary skill in the art of what is being claimed. Contrary to the Examiner's assertion, the quoted phrases of claims 9, 12 and 13 do not render the respective claims indefinite. One skilled in the art would clearly understand these features in light of specification. In regard to the Examiner's assertions that the quoted phrases are method limitations, Applicants respectfully submit that the features quoted by the Examiner do not include any steps, and are not recited as steps in the respective claims. Accordingly, based on the foregoing, claims 9-12 and 13 comply with the requirements of §112, second paragraph. Withdrawal of this rejection is respectfully submitted.

Claims 1, 4-5 and 7-11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,393,351 to Kinard et al. (the "Kinard reference"). It is respectfully submitted that the Kinard reference fails to anticipate claims 1, 4-5 and 7-11 for at least the following reasons.

To anticipate a claim under § 102, a single prior art reference must identically disclose each and every claim element. See Lindeman Machinenfabrik v. American Hoist and Derrick, 730 F.2d 1452, 1458 (Fed. Cir. 1984). If any claimed element is absent from a prior art reference, it cannot anticipate the claim. See Rowe v. Dror, 112 F.3d 473, 478 (Fed. Cir. 1997).

The Office Action states that the Kinard reference anticipates and teaches the subject

matter of claims 1, 4-5 and 7-11. The Kinard reference relates to multilayer, thin-film, multijunction thermal converters (MLF-MJTC)'s which offer performance over very broad ranges of frequency, current range and output emf, with low ac-dc and RF-dc differences, in a form suitable for low cost mass production for inclusion in a variety of instruments.

The Office Action specifically states that Figures 2 and 3 of the Kinard reference discloses the features of claim 1. Claim 1 recites, "a heating element formed by the first structure in the metal layer[.] . . ." The Examiner apparently equates the thermopile 208 of the Kinard reference with the metal layer of claim 1, and the heater element 206 with the heater of claim 1. The Kinard reference describes the thermopiles 208 and 210 as two dissimilar metals joined at a hot junction where they are heated by the adjacently disposed heater element 206. The Kinard reference simply describes the heater element as a heater element 206 disposed over a through opening 226. (Kinard reference, Col. 10, lines 37-41). The Kinard reference does not describe or disclose a heater that is formed by the first structure of a metal layer. The Kinard reference states that the thermopile 208 includes a plurality of serially connected and geometrically similar thermocouples. (Kinard reference, Col. 11, lines 3-5). The Kinard reference fails to describe or teach that the thermopile 208 includes a first structure which forms a heating element. The heater element 206 of the Kinard reference is described as a separate element and is not described as being formed by the thermopile 208 structure.

Based on the foregoing, Applicants respectfully submit that the Kinard reference does not anticipate claim 1. Claim 4-5 and 7-11 depend from claim 1, so the above argument in regard to claim 1 applies equally to claims 4-5 and 7-11. Withdrawal of this rejection is respectfully requested.

Claims 2-3 and 6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kinard reference in view of U.S. Patent No. 5,393,351 to Sato et al. (the "Sato reference"). It is respectfully submitted that the combination of the Kinard and Sato references does not render claims 2-3 and 6 obvious for at least the following reasons.

The Office Action states that the combination of the Kinard and Sato references renders claims 2-3 and 6 obvious. Claims 2-3 and 6 depend from claim 1. Thus, the arguments presented above in connection with claim 1 in regard to the Kinard reference apply equally to claims 2-3 and 6. Moreover, the Sato reference does not cure the deficiencies associated with the Kinard reference as discussed in connection with claim 1. Accordingly, Applicants respectfully submit that the even if one combined the Kinard and Sato references, one would not be able to achieve the subject matter of claims 2-3 and 6.

In view of the foregoing, it is respectfully submitted that the Kinard and Sato references, either individually or in combination, do not render claim 2-3 and 6 obvious. Withdrawal of this rejection is respectfully requested.

CONCLUSION

In light of the foregoing, Applicants respectfully submit that all of the pending claims are in condition for allowance. Prompt reconsideration and allowance of the present application are therefore earnestly solicited.

The Office is authorized to charge any fees associated with this Response to Kenyon & Kenyon Deposit Account No. 11-0600.

Respectfully submitted,
KENYON & KENYON

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